

## CLAIMS

What is claimed is:

1. A system that facilitates generation of code and/or documents, comprising:  
a discovery component that receives data relating to at least one of a user's request for desired code functionality and one or more desired documents; and  
a mapping component that correlates parsed subsets of the data to specific functional objects respectively located remote from the user; and  
a generator that employs the functional objects to form at least one of the desired code functionality and the documents.
2. The system of claim 1, the discovery component receives user input as a request for information, the request including at least one of text input, voice encoded input, video camera input, and audio input.
3. The system of claim 2, the requested for information is in the form of a natural language or syntax that is familiar to the user including terms and expressions that have been employed over time by the user.
4. The system of claim 2, the user input is processed by a parser into functional components relating to information components that are processed to facilitate desired information retrieval.
5. The system of claim 1, the functional objects represent vocabulary and terminology that is familiar to the user and which has been modeled or learned from at least one user's past patterns when searching for or seeking information.
6. The system of claim 5, the functional objects include rules or models that map or analogize one set of terms with a subsequent set of terms.

7. The system of claim 5, the functional components are employed to build or create search terms or queries that are can be applied to a remote or local database.
8. The system of claim 5, the functional objects include at least one of a rule, a learning algorithm, an automated classification method, an inference model, a probability model, a statistical model, a neural network, a Support Vector Machine (SVM), a Naive Bayes model, a Bayes network, a decision tree, a similarity-based model, a vector-based model, and a Hidden Markov Model.
9. The system of claim 5, the functional objects are associated with a decision-theoretic analysis that includes analyzing extrinsic evidence or data of a user's present context state, and directing information in accordance with the data.
10. The system of claim 9, the evidence includes at least one of keyboard activities, mouse movements, microphone inputs, camera inputs, time information, and electronic calendar information.
11. The system of claim 1, the generator includes at least one of an automated search engine, an indexing engine, and a structured query language engine for retrieving information from a database.
12. The system of claim 1, further comprising at least one of a technical vocabulary object, a development vocabulary object, a synonym object, an index object, and a prioritization object to facilitate retrieval of information.
13. The system of claim 1, further comprising an instrumentation component to determine an importance value for a data item.

14. The system of claim 13, the instrumentation component tracks and maps successful and unsuccessful attempts to discover and interpret technology-specific and programming-language-specific functionality employing a natural or professional language.
15. The system of claim 13, further comprising a database for search attempts that indicates a technical value for selected technical information within a documentation set or other data structure residing in the database.
16. The system of claim 13, the instrumentation component monitors at least one of visible technical documentation, search engine activity, ad network traffic activity.
17. The system of claim 16, the instrumentation component monitors at least one of a counter, a type of word or phrase employed in a search, an implied or inferred measurement of data activity and an explicit request from users regarding a data source's technical value, ranking or merit.
18. The system of claim 17, further comprising a graphical user interface to determine a value for a data item.
19. The system of claim 18, the user interface includes at least one of a ratings scale, a feedback component to allow users to determine what others thought of the data item, and an input box to enable users to submit feedback as to why they ranked a particular data item in the manner that was selected.
20. The system of claim 1, further comprising a graphical user interface to depict a cross reference of developer terms with a subsequent set of mapped terms.

21. The system of claim 20, the cross reference includes at least one of a table of developer terms displayed with a table of mapped terms, a single table showing cross-functional relationships including arrows or other indicators depicting relationships between terms, a modular or graphical output including a block diagram in developer terms that highlights or points to a corresponding block diagram of mapped terms, a system drawing to show one component's relationship to the system in developers terms while also illustrating, fading, superimposing, or highlighting a related term on the system drawing to detail a relationship between mapped terms or phrases, and contrast blocks or diagrams that are displayed detailing differences with conventional terminology or design practices.
22. A computer readable medium having computer readable instructions stored thereon for implementing the discovery component, the mapping component, and the generator of claim 1.
23. A computer-based information retrieval system, comprising:  
means for creating an object associated with developer terms or phrases;  
means for correlating the object with unfamiliar terms or phrases;  
means for retrieving functional information associated with the developer terms and phrases in accordance with the unfamiliar terms and phrases.
24. A method to facilitate automated information retrieval, comprising:  
automatically generating a familiar object set associated with a development environment;  
automatically comparing the familiar object set to an unfamiliar object set associated with a different development environment; and  
automatically searching for functional information based at least in part on determined differences between the familiar object set and the unfamiliar object set.

25. The method of claim 24, further comprising automatically monitoring one or more developer's activities to determine the familiar object set.
26. The method of claim 24, further comprising:  
receiving a developer's request for functional information; and  
processing the request.
27. The method of claim 26, further comprising automatically deriving the functional information from an unfamiliar object set.
28. The method of claim 24, further comprising at least one of:  
receiving feedback from a developer; and  
generating a cross-index of familiar terms and unfamiliar terms to the developer.
29. The method of claim 24, the familiar object set further comprising at least one of a technical vocabulary object, a development vocabulary object, a synonym object, an index object, and a prioritization object.
30. The method of claim 24, further comprising automatically ranking the functional information.
31. A signal to facilitate communications between at least two components of an information discovery service, comprising:  
a data packet comprising:  
an object packet including terms related to a first development system;  
an index packet relating to terms of a second development system; and  
a search packet to determine functional information related to the second development system in accordance with the terms of the first development system.

32. A computer readable medium having a data structure stored thereon, the data structure comprising:

at least one object field indicating one or more developer terms;

at least one synonym field associated with an unfamiliar set of developer terms;

and

at least one mapping field to correlate the object field and the synonym field to facilitate retrieval of functional information.